

CLAIMS

1. (Currently Amended) A gaming system comprising:

a host that receives game controller data and determines quality of service (QOS) on the received game controller data, the QOS of the received game controller data having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the gaming system, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable, wherein transmission power at the game controller is based on the QOS determination of the received game controller data;

a game controller that transmits the game controller data to the host, receives host data from the host and determines QOS on the received host data, the QOS on the received host data having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the gaming system, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable, wherein reception power at the game controller is based on the QOS determination of the received host data, the game controller coupled to a battery; and

wherein a magnitude of the transmission power and the reception power conserves consumption of the battery.

2. (Original) The gaming system as recited in claim 1, wherein the host instructs the game controller to decrement transmission power at the game controller if the host determines that QOS on the received game controller data is acceptable.

3. (Original) The gaming system as recited in claim 1, wherein the host instructs the game controller to increment transmission power at the game controller if the host determines that QOS on the received game controller data is not acceptable.

4. (Original) The gaming system as recited in claim 1, wherein the game controller decrements receiver sensitivity at the game controller if the game controller determines that QOS on the received host data is acceptable.

5. (Original) The gaming system as recited in claim 1, wherein the game controller increments receiver sensitivity at the game controller if the game controller determines that QOS on the received host data is not acceptable.

6. (Original) The gaming system as recited in claim 1, wherein the host and game controller comprise wireless interfaces to establish a wireless link to transmit and receive the host data and game controller data.

7. (Original) The gaming system as recited in claim 6, wherein the wireless interfaces are comprised of radio frequency (RF) wireless technology.

8. (Original) The gaming system as recited in claim 1, wherein the QOS is based on error correcting using checksums on received data that includes one or more of the following: text data, data packet header data, and voice data.

9. (Original) The gaming system as recited in claim 1, wherein the host comprises:

a processor; and

an interface to receive game controller data, coupled to the processor, wherein the processor determines if the game controller data has been correctly received.

10. (Original) The gaming system as recited in claim 1, wherein the game controller comprises:

a processor;

an interface to receive host data, coupled to the processor, wherein the processor determines if the host data has been correctly received.

11. (Original) The gaming system as recited in claim 1, wherein the host comprises one of a game console or a personal computer.

12-15. (Cancelled)

16. (Currently Amended) A method to adjust communication power of a game controller, the game controller coupled to a battery, the method comprising:

receiving data from a host;

determining a quality of service (QOS) on the received data, the QOS having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the host, the game controller, or a combination thereof, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable;

changing receiver sensitivity based on the QOS determination; and

wherein a magnitude of the receiver sensitivity conserves consumption of the battery.

17. (Original) The method as recited in claim 16, wherein the receiving is through a wireless link.

18. (Original) The method as recited in claim 16, wherein the determining is based on at least one of the following data: text data, header data, error correcting data, and voice data.

19. (Original) The method as recited in claim 16, wherein the changing decrements receiver sensitivity if the received data is determined to be not correct.

20. (Original) The method of claim 16 further comprising changing transmission power based on feedback from the host.

21. (Original) The method of claim 20 wherein the feedback is based on a determination by the host of whether data received from the game controller is correct.

22. (Original) One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 16.

23. (Original) A game controller that performs the method as recited in claim 16.

24. (Currently Amended) A method to adjust communication power of a game controller, the game controller coupled to a battery, the method comprising:

receiving data by a host from the game controller;

determining quality of service (QOS) of the received data from the game controller, the QOS having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the host, the game controller, or a combination thereof, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable;

adjusting transmission power to the game controller based on the QOS determination; and

wherein a magnitude of the transmission power conserves consumption of the battery.

25. (Previously presented) The method as recited in claim 24, wherein the receiving is performed through a wireless link between a host and game controller.

26. (Original) The method as recited in claim 24, wherein the determining is based on one or more of the following QOS metrics: text data, header data, error correcting data, and voice data.

27. (Original) The method as recited in claim 24, wherein the providing feedback instructs the game controller to decrement transmission power if QOS is determined to be acceptable and instructs the game controller to increment reception power if QOS is determined to be not acceptable.

28. (Original) One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 24.

29. (Original) A host that performs the method as recited in claim 24.

30. (Currently Amended) For use with a gaming system, a storage medium having instructions that, when executed on the gaming system, causes the gaming system to perform acts comprising:

determining QOS of data communicated between a host and one or more game controllers, each game controller being coupled to a battery, the QOS having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the gaming system, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable;

adjusting receiver sensitivity in the game controllers based on the QOS determination of host data received at each of the game controllers;

adjusting transmission power in each of the game controllers based on the QOS determination of game controller data received by the host from each of the game controllers; and

wherein a magnitude of the receiver sensitivity and the transmission power in each of the game controllers conserves consumption of the battery in each of the game controllers.

31. (Original) A storage medium as recited in claim 30, wherein the determining QOS is based on one or more of the following metrics: data received, error correcting on data received, header data, and voice data.

32. (Original) A storage medium as recited in claim 30, wherein the determining QOS of data is performed on data that is communicated through wireless communication links between the host and game controllers.

33. (Currently Amended) A gaming system comprising:
means for exchanging data between a host and a game controller, the game controller coupled to a battery;

means for determining QOS of host data received by the game controller, the QOS of the host data having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the gaming system, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable;

means for determining QOS of game controller data received by the host, the QOS of the game controller data having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the gaming system, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable; and

means for changing communication power levels in a game controller, wherein transmission power is changed based on the QOS determination of the game controller data and receiver sensitivity is changed based on the QOS determination of the host data, wherein the power levels of operation are predetermined and expressed in a table

including upper threshold power level, lower threshold power level, and intermediate power levels, wherein a magnitude of the transmission power and the reception sensitivity conserves consumption of the battery.

34. (Original) The gaming system as recited in claim 33 wherein the means for exchanging data is performed through a wireless link.

35. (Previously Presented) The gaming system as recited in claim 1, wherein the transmission power is set to an upper threshold value to transmit initial data to the host and the reception power is set to an upper threshold value to receive initial data from the host.

36. (Previously Presented) The method as recited in claim 16, further including maintaining a link between the host and the game controller while changing the receiver sensitivity.

37. (Previously Presented) The method as recited in claim 24, further including maintaining a link between the host and the game controller while adjusting the transmission power.

38. (Previously Presented) A storage medium as recited in claim 30, wherein the receiver sensitivity is set to an upper threshold value to receive initial data from the

host and the transmission power is set to an upper threshold value to transmit initial data from the host.

39. (Previously Presented) The gaming system as recited in claim 33 wherein the receiver sensitivity is set to an upper threshold value to receive initial data from the host and transmission power is set to an upper threshold value to transmit initial data to the host.

40. (Currently Amended) A method to adjust communication power between a host and a game controller of a gaming system, the method comprising:

receiving data by the game controller from a host;

determining quality of service (QOS) of the received data from the host the QOS having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the gaming system, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable;

adjusting reception power of the game controller based on the QOS determination of the received data from the host, wherein adjusting comprises decrementing reception power at the game controller if the game controller determines that QOS on the received host data is acceptable and incrementing reception power at the game controller if the game controller determines that QOS on the received host data is not acceptable;

transmitting data from the game controller to the host;

determining quality of service (QOS) of the received data from the game controller the QOS having a plurality of metrics associated therewith, with a subset of the plurality of metrics being selected that are applicable to a current state of the gaming system, with a number of metrics of the subset of the plurality of metrics being met to determine if the QOS is acceptable, wherein irrelevant or non-applicable metrics are ignored and not factored in determining if the QOS is acceptable;

adjusting transmission power of the game controller based on the QOS determination of the received data from the game controller, wherein adjusting comprises decrementing transmission power at the game controller if the host determines that QOS on the received game controller data is acceptable and incrementing transmission power at the game controller if the host determines that QOS on the received game controller data is not acceptable; and

wherein the reception and transmission power are adjusted to the lowest power level while maintaining a desired QOS.

41. (Previously Presented) The gaming system as recited in claim 1, wherein the metrics of the QOS comprise header data, text data, and voice data.

42. (Previously Presented) The gaming system as recited in claim 1, wherein the gaming system further comprises a plurality of game controllers, with only one game controller of the plurality of game controllers communicating with the gaming system at a time.

43. (Previously Presented) The gaming system as recited in claim 41, wherein the game controller further comprises a voice module to receive oral commands.